UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,199	11/26/2001	Andrew Loris Kurkjian	20.2756	8119

23718 7590 09/17/2004

SCHLUMBERGER OILFIELD SERVICES
200 GILLINGHAM LANE
MD 200-9
SUGAR LAND, TX 77478

EXAMINER	
GAY, JENNIFER HAWKINS	
ART UNIT	**PAPER NUMBER**
3672	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

XIB

Office Action Summary	Application No.	Applicant(s)
	09/994,199	KURKJIAN ET AL.
	Examiner	Art Unit
	Jennifer H Gay	3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1 and 12 are objected to because of the following informalities:

- In line 5 of claim 1, "the coupon" should be changed to --the at least on sample of material-- as a coupon has been positively recited in the claim.
- In line 1 of claim 12 recites "a plurality of optically reactive coupons". It is unclear to the examiner if the coupons are different elements from the "at least one sample of material" recited in claim 10 or are referring to the same feature of the tool. For the purposes of examination, the examiner is assuming that line 1 of claim 12 should read --wherein the at least one sample of material comprises...--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 7, 10, 1, 15, 16, 18, 20-23, 35, 56, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abercrombie (US 4,605,065) in view of Freitas (US 4,928,760).

Regarding claim 1: Abercrombie disclose a method for identifying the presence of a corrosive substance in wellbore fluid. The method involves the following steps (see col. 2, ll 20-40):

- Lowering a downhole tool that includes at least one sample of a material that is operatively connected to the wellbore via production tubing. The coupon is optically reactive to the corrosive substance. In column 1, lines 16-29, Abercrombie teaches that hydrogen sulfide is a

common corrosive agent in wellbore and that fluid flowing through a tubing string can be wellbore fluid, i.e. fluid from the reservoir.

- Determining whether an optical reaction has occurred to the at least one sample.

Abercrombie discloses all of the limitations of the above claims except for the downhole tool being a formation evaluation tool.

However, in column 1, lines 48-53 Abercrombie recognizes that corrosion monitoring coupons can be lowered into a wellbore on a wireline thus teaching using such coupons on a formation evaluation tool.

Further, Freitas discloses a wireline formation evaluation tool for holding a plurality of coupons. Freitas also teaches using the coupons to monitor corrosion in a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the downhole tool of Abercrombie to be a formation evaluation tool as taught by Abercrombie and Freitas in order to have been able to be set anywhere in wellbore so that static and flowing conditions could be monitored and to have been reusable (see col. 2, ll 20-40 of Freitas) thus reducing the cost of the tool and the monitoring operation.

Regarding claims 2 and 3: The at least one sample is inspected for changes due to corrosion after it is removed from the wellbore. *It should be noted that the inspection of the at least one sample for changes due to corrosion would be indicate if hydrogen sulfide was in the well and the degree of the corrosion would indicate the amount of hydrogen sulfide.*

Regarding claim 4: As noted in column 2, lines 20-40, the tool is lowered into and retrieved from the wellbore.

Regarding claim 7: As noted in column 2, lines 22-25, the at least one sample is made of stainless steel.

Regarding claim 10: The method of Abercrombie further includes the following steps:

- Lowering the tool into the wellbore where the tool includes a housing (11), the at least one sample (59), and at least one passage (27) for conducting formation fluid to the at least one sample.
- Delivering the wellbore fluid to the at least one sample through the passage.
- Retrieving the tool from the wellbore.
- Inspecting the at least one sample for an optical reaction. In column 1, lines 16-29, Abercrombie teaches that hydrogen sulfide is a common corrosive agent in wellbore.

Abercrombie discloses all of the limitations of the above claims except for the downhole tool being a formation evaluation tool.

However, in column 1, lines 48-53 Abercrombie recognizes that corrosion monitoring coupons can be lowered into a wellbore on a wireline thus teaching using such coupons on a formation evaluation tool.

Further, Freitas discloses a wireline formation evaluation tool for holding a plurality of coupons. Freitas also teaches using the coupons to monitor corrosion in a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the downhole tool of Abercrombie to be a formation evaluation tool as taught by Abercrombie and Freitas in order to have been able to be set anywhere in wellbore so that static and flowing conditions could be monitored and to have been reusable (see col. 2, ll 20-40 of Freitas) thus reducing the cost of the tool and the monitoring operation.

Regarding claim 11: As noted in column 2, lines 22-25, the at least one sample is made of stainless steel.

Regarding claim 15: The method of Abercrombie further includes the following steps:

- Lowering the tool into the wellbore where the tool includes a housing (11), the at least one sample (59), and at least one passage (27) for conducting formation fluid to the at least one sample.

- Delivering the wellbore fluid to the at least one sample through the passage.
- Retrieving the tool from the wellbore.
- Inspecting the at least one sample for an optical reaction. In column 1, lines 16-29, Abercrombie teaches that hydrogen sulfide is a common corrosive agent in wellbore.

Abercrombie discloses all of the limitations of the above claims except for the downhole tool being a formation evaluation tool.

However, in column 1, lines 48-53 Abercrombie recognizes that corrosion monitoring coupons can be lowered into a wellbore on a wireline thus teaching using such coupons on a formation evaluation tool.

Further, Freitas discloses a wireline formation evaluation tool for holding a plurality of coupons. Freitas also teaches using the coupons to monitor corrosion in a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the downhole tool of Abercrombie to be a formation evaluation tool as taught by Abercrombie and Freitas in order to have been able to be set anywhere in wellbore so that static and flowing conditions could be monitored and to have been reusable (see col. 2, ll 20-40 of Freitas) thus reducing the cost of the tool and the monitoring operation.

Regarding claim 16: As noted in column 2, lines 22-25, the at least one sample is made of stainless steel.

Regarding claim 18: While not specifically disclosed that the at least one sample changes color in response to the presence of hydrogen sulfide, the examiner notes that Abercrombie does inspect the at least one sample for changes due to corrosion and it is the examiner's opinion that color change is the most common visual way of determining if a material has corroded. Therefore, the examiner believes that Abercrombie teaches this feature.

Regarding claim 20: The apparatus used in the method of Abercrombie includes the following features:

- A housing (11).
- At least one sample (59) that is operatively connected to the housing. The sample is reactive to a corrosive material. In column 1, lines 16-29, Abercrombie teaches that hydrogen sulfide is a common corrosive agent in wellbore.
- At least one passage (27) for conducting formation fluid to the at least one sample.

Abercrombie discloses all of the limitations of the above claims except for the downhole tool being a formation evaluation tool.

However, in column 1, lines 48-53 Abercrombie recognizes that corrosion monitoring coupons can be lowered into a wellbore on a wireline thus teaching using such coupons on a formation evaluation tool.

Further, Freitas discloses a wireline formation evaluation tool for holding a plurality of coupons. Freitas also teaches using the coupons to monitor corrosion in a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the downhole tool of Abercrombie to be a formation evaluation tool as taught by Abercrombie and Freitas in order to have been able to be set anywhere in wellbore so that static and flowing conditions could be monitored and to have been reusable (see col. 2, ll 20-40 of Freitas) thus reducing the cost of the tool and the monitoring operation.

Regarding claims 21 and 22: As noted in column 2, lines 22-25, the at least one sample is made of stainless steel.

Regarding claim 23: While not specifically disclosed that the at least one sample changes color in response to the presence of hydrogen sulfide, the examiner notes that Abercrombie does inspect the at least one sample for changes due to corrosion and it is the examiner's opinion that color change is the most common visual way of determining if a material has corroded. Therefore, the examiner believes that Abercrombie teaches this feature.

Regarding claim 35: The apparatus used in the method of Abercrombie includes the following features:

- A housing (29).
- At least one sample (59) that is reactive to a corrosive material. In column 1, lines 21-24, Abercrombie teaches that hydrogen sulfide is a common corrosive agent in wellbore.
- At least one passage (31) for conducting formation fluid to the at least one sample.

Abercrombie discloses all of the limitations of the above claims except for the downhole tool being a formation evaluation tool.

However, in column 1, lines 48-53 Abercrombie recognizes that corrosion monitoring coupons can be lowered into a wellbore on a wireline thus teaching using such coupons on a formation evaluation tool.

Further, Freitas discloses a wireline formation evaluation tool for holding a plurality of coupons. Freitas also teaches using the coupons to monitor corrosion in a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the downhole tool of Abercrombie to be a formation evaluation tool as taught by Abercrombie and Freitas in order to have been able to be set anywhere in wellbore so that static and flowing conditions could be monitored and to have been reusable (see col. 2, ll 20-40 of Freitas) thus reducing the cost of the tool and the monitoring operation.

Regarding claim 36: As noted in column 2, lines 22-25, the at least one sample is made of stainless steel.

Regarding claim 38: While not specifically disclosed that the at least one sample changes color in response to the presence of hydrogen sulfide, the examiner notes that Abercrombie does inspect the at least one sample for changes due to corrosion and it is the examiner's opinion that color change is the most common visual way of determining if a material has corroded. Therefore, the examiner believes that Abercrombie teaches this feature.

4. Claims 5, 6, 8, 9, 13, 24, 25, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abercrombie (US 4,605,065) in view of Freitas (US 4,928,760) as applied to claims 1, 10, and 20 above, and further in view of Waterman et al. (US 5,627,749).

Regarding claims 5, 6, 13, and 24: Abercrombie and Freitas disclose all of the limitations of the above claims except for a temperature sensor to take temperature readings of the wellbore fluid.

Waterman et al. teaches a method and tool for monitoring corrosion in a wellbore where the tool includes a temperature sensor.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included a temperature sensor as taught by Waterman et al. in the system of Abercrombie in view of Freitas in order to have been able to correlate the amount of corrosion to the temperature of the well since corrosion is dependent on the temperature of the fluid (see col. 1, ll 23-27).

Regarding claims 8, 9, 30, and 31: Abercrombie and Freitas disclose all of the limitations of the above claims except for a sensor that is capable of detecting the visual change in the at least one sample where the sensor can transmit a single that indicates the change.

Waterman et al. teaches a sensor that monitors the corrosion of a coupon and a CPU stores and transmits the data from the sensor.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included the sensor and CPU of Waterman et al. in the system of Abercrombie in view of Freitas in order to have provided a means for monitoring the change in hydrogen sulfide amounts over a given time without having to remove the tool (see col. 1, ll 30-50).

Regarding claim 25: Abercrombie, Freitas, and Waterman et al. discloses all of the limitations of the above claims except for a pressure sensor.

However, in column 1, lines 23-27, Waterman et al. teaches that the rate of corrosion is dependent on the pressure with the wellbore.

Therefore, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have include a pressure sensor in the system of Abercrombie in view of Freitas and Waterman et al. in order to have been able to correlate the amount of corrosion to the pressure of the well since corrosion is dependent on the pressure of the well (see col. 1, ll 23-27).

5. Claims 12 and 26-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abercrombie (US 4,605,065) in view of Freitas (US 4,928,760) as applied to claims 10 and 20 above, and further in view of Williams (US 4,688,638).

Regarding claims 12, 26, 27, and 29: Abercrombie and Freitas disclose all of the limitations of the above claims except for the at least one sample including several coupons where the coupons have different reactive responses.

As noted in column 1, line 67-column 2, line 12, Williams teach a downhole corrosion coupon holder. The holder can hold two or more coupons and the coupons may be of different material.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have include several coupons in the system of Abercrombie in view of Freitas where the coupons have different reactive responses as taught by Williams in order to have been able to determine how different alloys were affected by the same environment.

Regarding claim 28: Abercrombie and Freitas disclose all of the limitations of the above claims except for the tool housing being resistant to hydrogen sulfide.

While it is not specifically taught that the coupon holder of Williams is resistant to corrosion due to hydrogen sulfide, the examiner considers the statement that, once the tool is brought to the surface, the coupons are removed from the holder and then tested (see col. 4, ll 35-40) an indication that the holder itself has not corroded due to the fact that it is the coupons that used to determine the rate of corrosion.

Therefore, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the coupon holder of

Abercrombie in view of Freitas so that it was corrosion resistant as taught by Williams in order to have been able to reuse the coupon holder.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abercrombie (US 4,605,065) in view of Freitas (US 4,928,760) as applied to claim 10 above, and further in view of GB 2344365.

Abercrombie and Freitas disclose all of the limitations of the above claims except for collecting a sample of the wellbore fluid in the tool.

GB 2344365 teaches a method and apparatus for measuring the amount of volatile components in wellbore fluid where a sample of the wellbore fluid is collected and brought to the surface (see page 8, line 25-page 9, line 5).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the system of Abercrombie in view of Freitas to collect a sample of the wellbore fluid as taught by GB 2344365 in order to have been able to perform a complete analysis of the wellbore fluid.

7. Claims 17 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abercrombie (US 4,605,065) in view of Freitas (US 4,928,760) as applied to claim 10 above, and further in view of *Monel*.

Abercrombie et al. and Freitas disclose all of the limitations of the above claims except for the coupons being made of MONEL alloy 400.

On page 4, paragraph 10, *Monel* teaches that it is known that MONEL is corroded by hydrogen sulfide but resists embrittling in oil-well brines that contain hydrogen sulfide.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the coupon of Abercrombie in view of Freitas from MONEL as taught by *Monel* in order to have used a metal that corrodes in hydrogen sulfide but would not become brittle in a wellbore.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abercrombie (US 4,605,065) in view of Freitas (US 4,928,760) and Waterman et al. (US 5,627,749).

Regarding claim 19: Abercrombie discloses a method for monitoring fluid in a wellbore that includes the following steps:

- Lowering a downhole tool into a wellbore where the tool includes a housing (11), at least one sample (59), and at least one passage (27) for conducting formation fluid to the at least one sample. The at least one sample is optically reactive to hydrogen sulfide.
- Delivering wellbore fluid to the at least one sample through the passage.
- Retrieving the tool from the wellbore.
- Inspecting the at least one sample for an optical reaction. In column 1, lines 21-24, Abercrombie teaches that hydrogen sulfide is a common corrosive agent in wellbore.
- The at least one sample is inspected for changes due to corrosion after it is removed from the wellbore. *It should be noted that the inspection of the at least one sample for changes due to corrosion would be indicate if hydrogen sulfide was in the well and the degree of the corrosion would indicate the amount of hydrogen sulfide.*

Abercrombie discloses all of the limitations of the above claims except for the downhole tool being a formation evaluation tool and except for a temperature sensor to take temperature readings of the wellbore fluid.

However, in column 1, lines 48-53 Abercrombie recognizes that corrosion monitoring coupons can be lowered into a wellbore on a wireline thus teaching using such coupons on a formation evaluation tool.

Further, Freitas discloses a wireline formation evaluation tool for holding a plurality of coupons. Freitas also teaches using the coupons to monitor corrosion in a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the downhole tool of Abercrombie to be a formation evaluation tool as taught by Abercrombie and Freitas in order to have been

able to be set anywhere in wellbore so that static and flowing conditions could be monitored and to have been reusable (see col. 2, ll 20-40 of Freitas) thus reducing the cost of the tool and the monitoring operation.

Waterman et al. teaches a method and tool for monitoring corrosion in a wellbore. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included a temperature sensor as taught by Waterman et al. in the system of Abercrombie in view of Freitas in order to have been able to correlate the amount of corrosion to the temperature of the well since corrosion is dependent on the temperature of the fluid (see col. 1, ll 23-27).

9. Claims 32-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abercrombie (US 4,605,065) in view of Freitas (US 4,928,760), Waterman et al. (US 5,627,749), GB 2344365, and Williams (US 4,688,638).

Regarding claim 32: Abercrombie discloses an apparatus for monitoring corrosion in a well that includes the following features:

- A housing (29).
- At least one sample (59) that is reactive to a corrosive material. In column 1, lines 21-24, Abercrombie teaches that hydrogen sulfide is a common corrosive agent in wellbore.
- At least one passage (31) for conducting formation fluid to the at least one sample.
- While not specifically disclosed that the at least one sample changes color in response to the presence of hydrogen sulfide, the examiner notes that Abercrombie does inspect the at least one sample for changes due to corrosion and it is the examiner's opinion that color change is the most common visual way of determining if a material has corroded. Therefore, the examiner believes that Abercrombie teaches this feature.

Abercrombie discloses all of the limitations of the above claims except for the downhole tool being a formation evaluation tool, except for using a plurality of coupons, except for a temperature sensor to take temperature readings of the wellbore fluid, and except for a probe to direct fluid into the tool.

However, in column 1, lines 48-53 Abercrombie recognizes that corrosion monitoring coupons can be lowered into a wellbore on a wireline thus teaching using such coupons on a formation evaluation tool.

Further, Freitas discloses a wireline formation evaluation tool for holding a plurality of coupons. Freitas also teaches using the coupons to monitor corrosion in a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the downhole tool of Abercrombie to be a formation evaluation tool as taught by Abercrombie and Freitas in order to have been able to be set anywhere in wellbore so that static and flowing conditions could be monitored and to have been reusable (see col. 2, ll 20-40 of Freitas) thus reducing the cost of the tool and the monitoring operation.

As noted in column 1, line 67-column 2, line 12, Williams teach a downhole corrosion coupon holder. The holder can hold two or more coupons that are responsive to hydrogen sulfide and the coupons may be of different material.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included several coupons in the system of Abercrombie where the coupons are reactive to hydrogen sulfide as taught by Williams in order to have been able to determine how different alloys were affected by the same environment.

Waterman et al. teaches a method and tool for monitoring corrosion in a wellbore where the tool includes a temperature sensor.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included a temperature sensor as taught by

Waterman et al. in the system of Abercrombie in view of Williams in order to have been able to correlate the amount of corrosion to the temperature of the well since corrosion is dependent on the temperature of the fluid (see col. 1, ll 23-27).

GB 2344365 teaches a method and apparatus for measuring the amount of volatile components in wellbore fluid where a sample of the wellbore fluid is collected and brought to the surface (see page 8, line 25-page 9, line 5). The apparatus includes a probe (34) to direct formation fluid into the tool.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Abercrombie in view of Williams and Waterman et al. to include the probe of GB 2344365 in order to have provided a means for ensuring that a pure formation fluid sample was tested for corrosive materials.

Regarding claim 33 and 34: Waterman et al. teaches a sensor that monitors the corrosion of a coupon and a CPU stores and transmits the data from the sensor.

Response to Arguments

10. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments filed 19 July 2994 have been fully considered but they are not persuasive.

In response to applicant's argument that Waterman teaches away from combination with Abercrombie, i.e. positioning a coupon within the flow of fluid for an interval of time, the examiner notes that the sections of Waterman and Abercrombie cited by applicant both teach leaving the coupon in the wellbore for a selected amount of time.

In response to applicant's argument that there is no suggestion to combine Abercrombie and GB 2344365, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation is that one of ordinary skill would want a complete analysis of the reservoir fluid not just a measure of the visual reaction of the coupon and the wellbore fluid.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining references made of record disclose various corrosion monitoring systems.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer H Gay
Patent Examiner
Art Unit 3672

JHG
September 14, 2004